

CVR-35 BETACAM SP PORTABLE VTR



BETACAM **SP**

AMPEX

THE PORTABLE CVR-35: NEW LEVELS OF PERFORMANCE FOR ENG AND EFP ACQUISITION

The Ampex CVR-35 portable VTR has been designed to deliver studio-quality video and audio recording and playback—even under the harshest conditions.

The unit itself is rugged and durable, and the controls are large and easy to operate. And since it records and plays both Betacam and Betacam SP the CVR-35 is ideal for a wide range of ENG and EFP acquisition applications.

Compare. No other 1/2" portable VTR delivers the signal quality of Betacam SP.

And no other portable Betacam VTR combines the features of the CVR-35 like confidence playback, flexible editing capability, and four audio channels, with the kind of service and support you can only get from Ampex.

up to 120 minutes of recording

Through advanced circuit design and new semiconductor technology, power consumption for the CVR-35 is kept to a minimum.

You can choose between NP-1A or BP-90 batteries for up to 120 minutes of recording on one set of batteries.

An AC-500 Power Adaptor is also available for AC operation.

Excellent picture quality—with two playback modes

Now you can insure that you have recorded the picture you need. Luminance or CTDM (Compressed Time Division Multiplex) monochrome pictures can be seen in the camera viewfinder, either during recording using the confidence playback mode, or later using the normal

playback mode. In addition, color pictures can be viewed on a monitor during normal playback.

Four audio channels—allow you to listen to each of the video

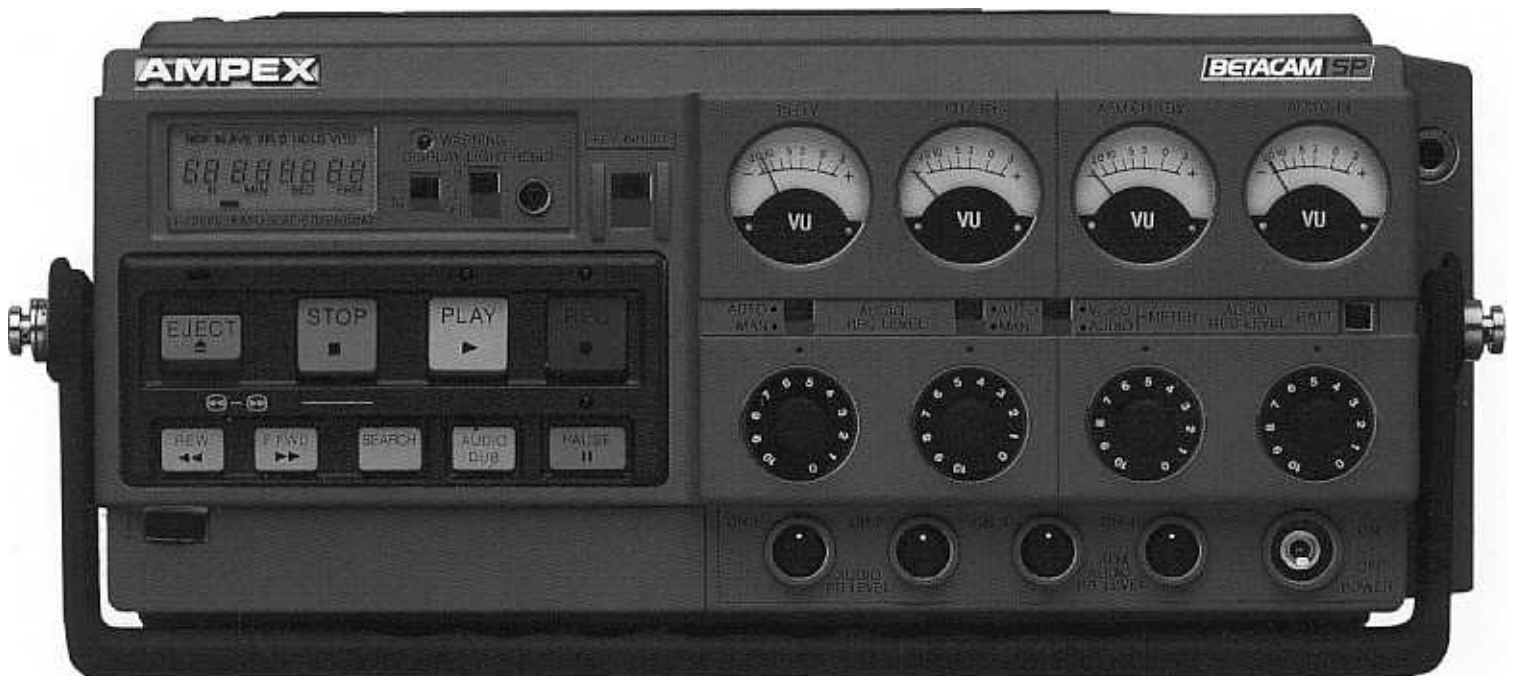
With the new Betacam SP format the CVR-35 can deliver true studio quality audio performance.

In addition to two new high performance AFM tracks, specifications have been improved on the longitudinal channels. Dolby* C noise reduction is also provided on the longitudinal channels to further improve sound quality.

And as with the video capability, you also have audio confidence playback while recording, to assure that those valuable scene sounds are being captured.

*Dolby is a registered trademark of Dolby Laboratories Licensing Corporation

Rugged CVR-35 is easy to operate and includes features like confidence playback, 4 audio channels and a full-featured connector panel.



Choose between NP-1A or BP-90 battery packs for up to 120 minutes of recording.



Automatic *frame accurate* back space editing and nearly instantaneous starts on the CVR-35 provide smooth, continuous recording without break-up between sequences.

The CVR-35 is designed to also act as a high quality video/audio "feeder" source for an editing VTR. During the editing process the CVR-35 can be controlled by the editing VTR through the RS-422 serial interface.

Functional time code reader with genlock

Now you can have a choice of time codes for post-production on Betacam SP. In step with the extended performance of Betacam SP, the CVR-35 brings

the advance of Vertical Interval Time Code (VITC) as well as the SMPTE/EBU longitudinal track format.

The versatility of the new Time Code System of the CVR-35 includes presettable User Bits, free-run or record-run modes, and genlock for setting/synchronizing to an external time code master generator.

And to complement the new CVR-35 playback capabilities, both Time Code Systems now have built-in readers.

TBC interface adds versatility

Through a time base corrector, the CVR-35 is capable of studio-quality color playback for re-recording, microwave, satellite, or on-air transmission.

Advanced video/sync and subcarrier inputs are provided for use with an Ampex TBC-40 or other TBC.

Complete professional connector panel

Although compact in size, the CVR-35 provides a full featured connector panel that allows you to configure a system that meets your specific applications.

Composite and component video inputs and outputs are provided along with audio interfaces, allowing the CVR-35 to be connected to a wide variety of ENG/EFP equipment.

Designed for operational convenience

Independent VU meters and controls are provided so you can accurately adjust record and playback levels on all four audio channels. Other features include:

- ☐ Built-in RF modulator
- ☐ Time code/tape time display
- ☐ Video input level display
- ☐ Battery status display

Warning indicators are also provided for status of:

- ☐ RF
- ☐ Servo lock
- ☐ End of tape
- ☐ Tape slack
- ☐ Condensation
- ☐ Low battery

Phantom power supply

For applications where a remote mic is required, a "phantom" power supply is built right into the CVR-35. It's designed to power a professional quality condenser mic, providing audio input on Channel 1.

A wide selection of equipment, options and accessories

Ampex offers a complete line of Betacam and Betacam SP cameras, portable recorders and studio VTRs.

We also have a wide selection of options and accessories designed to help you configure a





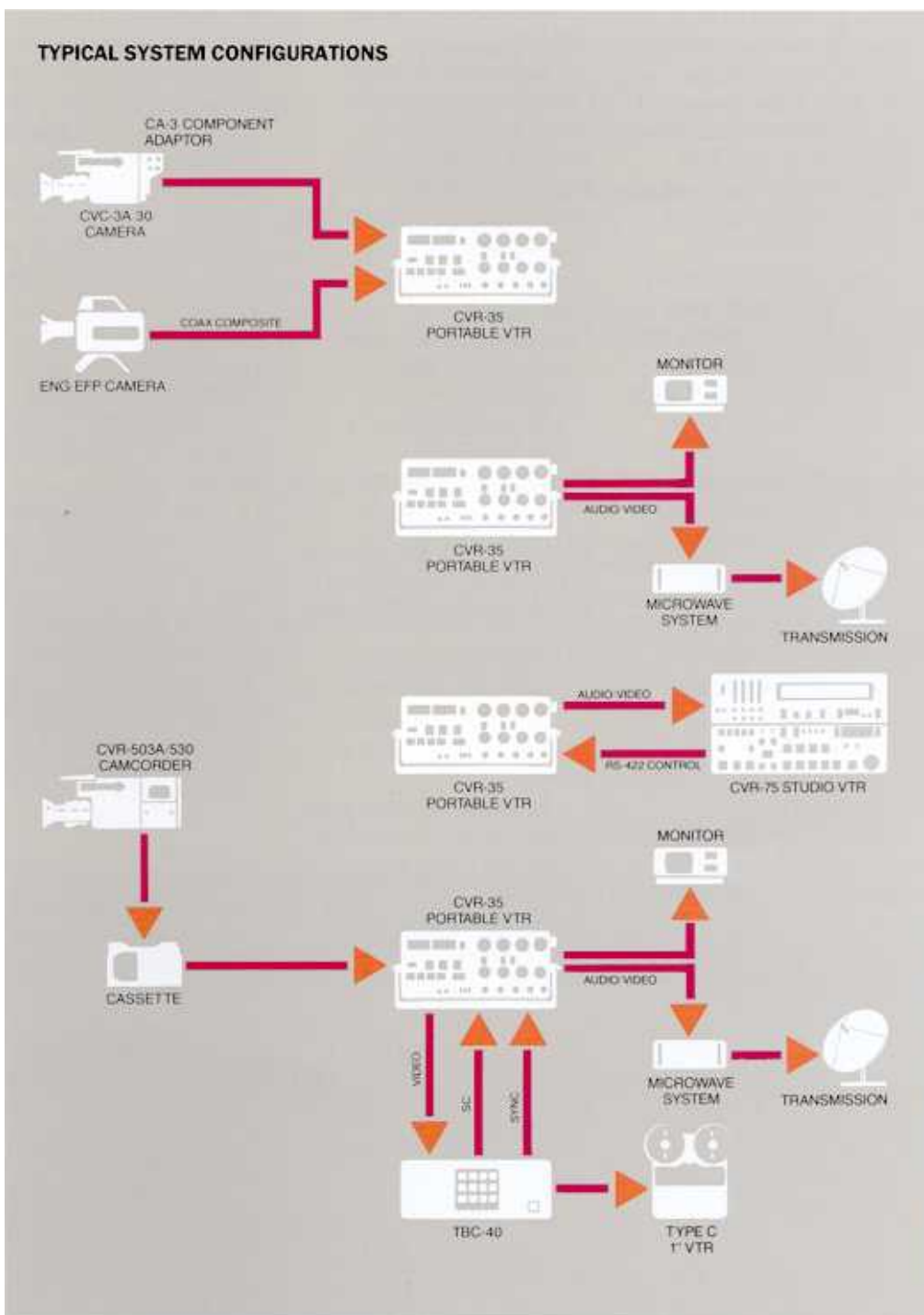
From manufacturing through customer service and support, Ampex is committed to Betacam and Betacam SP. And we'll provide this support to any Betacam professional, whether our name is on the product or not.

Betacam system to meet your specific production requirements. Our informative Systems and Accessories Guide offers configuration diagrams that can help you plan your system. You can get a copy from your nearest Ampex sales office or authorized Ampex dealer.

Ampex and Betacam—the best of both worlds

Take a good look at the Ampex line of Betacam products. They really do deliver the best of both worlds: a reliable, high-quality format, and a supplier with a reputation for customer service and support that's second to none.

Besides Betacam, Ampex offers a complete line of graphics systems, editors, ADO™ effects, and switchers, as well as the finest Type "C" VTRs in the world. No one provides *complete* system solutions like Ampex.



INTRODUCING BETACAM SP... STUDIO QUALITY VIDEO AND AUDIO IN A 1/2" FORMAT

One of the most notable improvements in the evolution of video production came in 1982 with the introduction of Betacam. This revolutionary format marked the beginning of a new era in portability.

Originally developed for broadcast news gathering, Betacam is used today as the acquisition format for all types of production. But with new applications came demands for improvement in picture and sound quality—as well as longer play times.

Betacam SP, developed as a compatible extension to the Betacam format, meets these needs while maintaining the reliability and durability of the original format. Either format, recorded on a 30-minute cassette, will playback in all existing and new Betacam products.

Best of all, users can now choose operation on Betacam or Betacam SP, as best meets their production requirements—without having to replace existing equipment.

The SP stands for superior performance

Betacam SP format recordings use metal particle tape. The finer particle structure, higher coercivity and fundamental magnetic properties of the metal particle tape provide:

- ☐ use of higher carrier frequencies
- ☐ improved luminance and chrominance signal-to-noise ratio
- ☐ improved luminance bandwidth
- ☐ improved K-factor and picture detail reproduction

All these factors also contribute to a significant improvement in multi-generation performance.

Four audio channels with performance to match the video

The audio quality of Betacam SP takes a step up as well.

In addition to better specifications on the two standard longitudinal tracks, Betacam SP adds two audio frequency-modulated (AFM) channels capable for studio-quality sound.

New longer playing time

In response to industry demands, the Ampex Betacam SP studio VTRs are designed to accommodate both the conventional 30 minute cassette as well as a new, longer playing cassette. This larger cassette has a playing time of up to 90 minutes NTSC or 100 minutes PAL.

We're committed to Betacam

From manufacturing through service we're as committed to Betacam and Betacam SP as we are to all our products.

Our prompt technical support, speedy spare parts delivery and responsive field service all translate into real added value for Ampex customers.

And we provide this service to all Betacam professionals worldwide—whether our name is on the product or not.

*Betacam and Betacam SP are trademarks of Sony Corporation

Betacam SP combines the convenience and reliability of the original Betacam format with an improved picture and sound quality your ENG and EFP applications demand.



CVR-35 RECORDER SPECIFICATIONS (Playback on CVR-75)

		NTSC	NTSC	PAL/SECAM	PAL/SECAM
VIDEO		OXIDE TAPE	METAL PARTICLE TAPE		
	Bandwidth, luminance	30 Hz to 4.1 MHz +0.5/-6.0 dB	30 Hz to 4.5 MHz +0.5/-3.0 dB		
	Chrominance, R-Y/B-Y:	30 Hz to 1.5 MHz +0.5/-3.0 dB	30 Hz to 1.5 MHz +0.5/-3.0 dB		
	S/N Luminance	48 dB	51 dB		
	Chrominance, amplitude	50 dB	55 dB		
	phase	50 dB	55 dB		
	K-factor (2T pulse)	Less than 3%	Less than 2%		
	Differential gain	Less than 3%	Less than 2%		
	Differential phase	Less than 3°	Less than 2°		
	Chrominance/luminance Delay	Less than 20 nsec	Less than 20 nsec		
AUDIO		LONGITUDINAL: OXIDE TAPE	LONGITUDINAL: METAL PARTICLE TAPE	AFM METAL PARTICLE TAPE	
	Frequency response	50 Hz to 15 KHz ±3 dB	50 Hz to 15 KHz 1/-2 dB	20 Hz to 20 KHz +0.5/-2.0 dB	
	S/N	50 dB (3% distortion level, without NR system)	54 dB (3% distortion level without NR system)		
	Dynamic range	N/A	N/A	More than 85 dB	
	Distortion (1 KHz ref. level)	Less than 2%	Less than 1%	Less than 0.5%	
SIGNAL INPUTS	Wow and flutter	Less than 0.15% rms	Less than 0.15% rms	N/A	
	Crosstalk	N/A	-65 dB	-65 dB	
	Depth of Erasure	More than 70 dB	More than 70 dB	N/A	
SIGNAL OUTPUTS	Video: (75 Ohms) BNC connector	1.0V p-p (VBS)/4.0V p-p (SYNC) (26-pin connector)			
	Camera: (75 Ohms) Composite	1.0V p-p			
	Component Y	1.0V p-p			
	B-Y/R-Y	0.7V p-p			
	SC (75 Ohms) BNC	2.0V p-p ±6 dB			
	Audio Ch. 1/2/3/4 XLR	-60 dB/-20 dB/+4 dB selectable			
		High impedance, balanced			
	Time code: BNC	0.5V -18V p-p, 10K Ohms			
GENERAL	Video 1/2, BNC (75 Ohms)	Composite video, 1.0V p-p			
	Dub 12-pin				
	Luminance Y:	1.0V p-p, 75 Ohms			
	Chrominance B-Y/R-Y:	0.7V p-p, 75 Ohms (75% color bars)			
	Audio, XLR, Ch. 1/2/3/4	+4 dBm, low impedance, balanced			
	Time code, BNC	2.2V p-p, ±3 dB, 75 Ohms			
	Headphone	Max. -20 dB, 8 Ohms			
	Earphone	Max. -20 dB, 8 Ohms			
	VHF (F-Connector)	Ch-3/4, NTSC			
	Record/playback time	30 min./NTSC	34 min./PAL/SECAM		
	Shuttle time	Less than 3 min. with 30 min. cassette			
	Operating time	120 min. with BP-90 (without camera)			
	Search speed	±3.0 times normal (monochrome picture)			
	Tape speed	11.86 cm/sec/NTSC	10.14 cm/sec/PAL/SECAM		
	Dimensions	*140 mm (5.5 in) H x 296 mm (11.7 in) W x 350 mm (13.8 in) D			
	Weight	6.8 kg (14 lb) without battery and tape			
	Temperature, Operating	0°C to +40°C (32°F to 104°F)			
	Storage	-20°C to 60°C (-4°F to 140°F)			
	Humidity	Less than 85% RH			
	Power requirements	DC 12V +4/-1 Volts			
	Power consumption	28W			
	Supplied accessories	Extension board, Shoulder belt, Operation/maintenance manual, Antenna selector switch, Coaxial cable with F-connector			

Ampex reserves the right to make product and specification changes at any time without notice.

AMPEX Ampex Corporation, Audio-Video Systems Division

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